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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/612,700

07/10/2000

Takaaki Suga

FUJI 17.533

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01/11/2005

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EXAMINER

RYMAN, DANIEL J

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/612,700

Applicant(s)

SUGA, TAKAAKI

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/3/2004 have been fully considered but they are not persuasive. On pages 7-8 of the Response, Applicant argues that the cited prior art does not teach or suggest "adjusting a fragment size based on the ongoing transmission of time-sensitive information." Specifically Applicant argues that Langley "fails to recognize that conditions in regard to time sensitive information are changing" and that Webster "fails to recognize a need to account for impairment as to time-sensitive information."
2. Although Langley does not explicitly disclose "that conditions in regard to time sensitive information are changing," Webster recognizes that communication lines are subject to time-varying noise such that all data carried on those lines would also be subject to time-varying conditions (Webster: col. 1, lines 26-41). Similarly, Applicant argues that Webster "fails to recognize a need to account for impairment as to time-sensitive information." However, Webster's system is not limited to a particular type of data. Therefore, Webster suggests that the system will work with any type of packet, including audio communication.
3. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As Applicant acknowledges, Langley "recognizes a need to determine acceptable delays inclusive of time sensitive information." After-Final Response, pg. 8. Webster "recognizes the need to change a length of data frames in response to a degree of impairment of data frame communication." After-Final

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Response, pg. 8. To do this, Webster measures the degree of the line impairment for the ongoing communication. Col. 6, lines 25-28. Thus, the combination suggests acquiring a parameter indicative of whether proper audio quality is maintained through ongoing transmission and dynamically changing the fragment size of the data packets in response to the acquired parameter.

4. For the above reasons, Examiner maintains the rejection of claims 1-12 based on the previously cited prior art.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langley (USPN 6,252,855) in view of Webster (USPN 5,307,351).

7. Regarding claims 1 and 7, Langley discloses a method of changing a fragment size of data packets in a router and a router in which the fragment size of data packets is changed where a data packet is divided into the data packets having the fragment size, and are transmitted to a network along with audio packets (col. 1, line 22-col. 2, line 15 and col. 2, line 63-col. 3, line 25), comprising the steps of and means for: acquiring, in the router at a control unit, a parameter indicative of whether proper audio quality is maintained through transmission of the audio packets (acceptable delay) (col. 1, line 62-col. 3, line 15; col. 2, line 63-col. 3, line 25; and col. 4,

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lines 8-54); and changing the fragment size of the data packets, in a fragmentation unit, in response to the acquired parameter (col. 2, line 63-col. 3, line 25 and col. 4, lines 8-54).

Langley does not expressly disclose acquiring the parameter through ongoing transmission or changing the fragment size of the data packets occurs dynamically. Webster teaches, in a system for adjusting the frame length according to a determined degree of impairment, acquiring a parameter through ongoing transmission (noise measurement) and dynamically changing the fragment size of the data packets in order to adjust the size of the fragment according to current network conditions (col. 6, lines 19-47, esp. col. 6, lines 25-28). It would have been obvious to one of ordinary skill in the art at the time of the invention to acquire a parameter through ongoing transmission and to dynamically change the fragment size of the data packets in order to adjust the size of the fragment according to current network conditions.

8. Regarding claims 2 and 8, referring to claims 1 and 7, Langley in view of Webster discloses acquiring an acceptable delay and determining the frame size based upon the acceptable delay, where acceptable delay takes into account any network delay (Langley: col. 4, lines 14-15). Langley in view of Webster also discloses that the wait time in a router impacts the delay of a packet (Langley: col. 1, line 62-col. 3, line 15). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the acquiring include measuring, as a parameter, a wait time for which the audio packets wait in the router before being transmitted to the network since the wait time impacts the delay of the packet.

9. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langley (USPN 6,252,855) in view of Webster (USPN 5,307,351) as applied to claims 1 and 7 above, and further in view of Shaffer et al (USPN 6,370,163).

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10. Regarding claims 3 and 9, referring to claims 1 and 7, Langley in view of Webster discloses acquiring an acceptable delay and determining the frame size based upon the acceptable delay, where acceptable delay takes into account network delay (Langley: col. 4, lines 14-15). Langley in view of Webster does not disclose that acquiring includes measuring, as a parameter, a delay time of the network by transmitting a hello packet to and receiving the hello packet from the network. Shaffer discloses, in a system for adjusting the size of packets according to delay, measuring network delay using packets (col. 2, lines 46-55), where Examiner takes official notice that hello packets are well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to measure, as said parameter, a delay time of the network by transmitting a hello packet to and receiving the hello packet from the network in order to determine the network delay of the system.

11. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langley (USPN 6,252,855) in view of Webster (USPN 5,307,351) as applied to claims 1 and 7 above, and further in view of Ganson et al (USPN 5,579,301).

12. Regarding claims 4 and 10, referring to claims 1 and 7, Langley in view of Webster discloses acquiring an acceptable delay and determining the frame size based upon the acceptable delay, where acceptable delay takes into account network delay (Langley: col. 4, lines 14-15). Langley in view of Webster does not disclose that acquiring includes counting, as a parameter, a number that indicates how many times a congestion notice is received from the network during a predetermined time period to indicate congestion of the network. Ganson teaches, in a system for avoiding delays of voice messages, using congestion notices to indicate congestion in order to allow actions to be taken to prevent any excessive delays (col. 1, line 23-

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col. 2, line 6 and col. 3, lines 26-33). It would have been obvious to one of ordinary skill in the art at the time of the invention to count, as said parameter, a number that indicates how many times a congestion notice is received from the network during a predetermined time period to indicate congestion of the network such that network delays can be determined and thus delays can be avoided.

13. Claims 5, 6, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langley (USPN 6,252,855) in view of Webster (USPN 5,307,351) as applied to claims 1 and 7 above, and further in view of Hluchyj et al (USPN 5,115,429).

14. Regarding claims 5 and 11, referring to claims 1 and 7, Langley in view of Webster discloses acquiring an acceptable delay and determining the frame size based upon the acceptable delay, where acceptable delay takes into account network delay (Langley: col. 4, lines 14-15). Langley in view of Webster does not disclose that acquiring includes acquiring, as said parameter, a number of audio calls from an apparatus that counts the number of audio calls. Hluchyj teaches, in a system for minimizing traffic congestion, using the number of calls measured at an apparatus (nodal processor) in order to declare congestions (col. 7, lines 50-57), where Examiner takes official notice that congestion impacts network delays. It would have been obvious to one of ordinary skill in the art at the time of the invention to acquire, as said parameter, a number of audio calls from an apparatus that counts the number of audio calls in order to determine the amount of congestion and thus the network delay.

15. Regarding claims 6 and 12, referring to claims 1 and 7, Langley in view of Webster discloses acquiring an acceptable delay and determining the frame size based upon the acceptable delay, where acceptable delay takes into account network delay (Langley: col. 4, lines

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14-15). Langley in view of Webster does not disclose that acquiring includes acquiring, as said parameter, a number of audio calls based on signaling information. Hluchyj teaches, in a system for minimizing traffic congestion, using the number of calls measured at an apparatus (nodal processor) in order to declare congestions (col. 7, lines 50-57), where Examiner takes official notice that congestion impacts network delays. Langley in view of Webster in further view of Hluchyj discloses acquiring, as said parameter, a number of audio calls based on signaling information since the number of calls measured by an apparatus (Hluchyj) would be sent to another unit, as signaling information, to calculate the maximum frame size (Langley). It would have been obvious to one of ordinary skill in the art at the time of the invention to acquire, as said parameter, a number of audio calls based on signaling information in order to determine the amount of congestion and thus the network delay.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Organ (USPN 5,781,554) see entire document which pertains to varying the size of data frames in order to control delay in the network. Blasbalg (USPN 4,771,391) see entire document which discloses varying the size of data frames in response to network impairments. Skemer et al (USPN 6,570,849) see entire document, which is not valid prior art, which pertains to a dynamic MTU algorithm.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

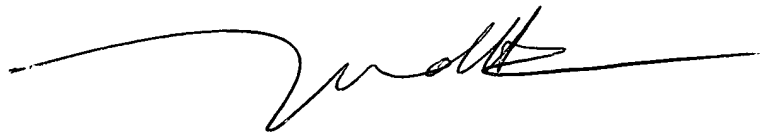
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel J. Ryman
Examiner
Art Unit 2665

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